## **Abstract**

A travelling field machine with a stator and a rotor which are separated by an air gap and each of which comprises at least one stator coil or one rotor coil, respectively, with the stator or the rotor, respectively, comprising a soft magnetic iron body with a stator or rotor back, respectively, in which spaced grooves are formed, generating teeth, and in each of the grooves several conductor bars of the stator coil or the rotor coil, respectively, are arranged in series comprising end connectors arranged at the faces of the stator or the rotor, respectively, which connect the conductor bars extending across at least one groove, with the conductor bars arranged in a neighbouring relationship in each of the grooves, comprising conductor portions of different length projecting beyond the faces of the stator or rotor, respectively, and the end connectors being arranged ladder-type at least partially in a stacked fashion in the axial direction towards the stator back or the air gap of the electrical machine at the faces of the stator or the rotor, respectively.